

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-39. (canceled)

40. (currently amended) A method for preparing a mesoporous polymer, comprising the steps of:

- (a) providing a solution containing a solvent and one or more polymerizable organic compounds whose polymerization rate depends on pH;
- (b) controlling the average polymer particle size primarily by controlling the pH of the solution; and
- (c) manipulating the pore size in the polymer primarily by adjusting the solvent concentration.

41. (original) The method according to claim 40, further including the step of drying the porous polymer to produce a dried porous polymer.

42. (currently amended) A method for preparing a mesoporous carbon, comprising the steps of:

- (a) providing a solution containing a solvent and one or more polymerizable organic compounds whose polymerization rate depends on pH;
- (b) controlling the average polymer particle size primarily by controlling the pH of the solution;
- (c) manipulating the pore size in the polymer by adjusting the solvent concentration; and
- (d) pyrolyzing the porous polymer to form a porous carbon.

43. (original) The method according to claim 42, further including the step of activating the porous carbon so as to increase its capacitance when used with an electrolyte.

44. (original) The method according to claim 42, further including the step of activating the porous carbon, wherein the activation is carried out at between 500°C and 1200°C.

45. (original) The method according to claim 42, further including the step of controlling the composition of the solution so as to produce a mesoporous carbon having a pore size between 2 and 50 nm.

46. (original) The method according to claim 42, further including the step of controlling the composition of the solution so as to produce a mesoporous carbon having a pore size between 10 and 28 nm.

47. (withdrawn) A capacitor, comprising:

at least two electrodes, at least one of said electrodes comprising a mesoporous carbon material produced according to claim 42; and
an electrolyte in contact with at least one of said electrodes.

48. (withdrawn) The capacitor according to claim 47 wherein the electrolyte is a non-aqueous electrolyte.

49. (withdrawn) The capacitor according to claim 47 wherein the electrolyte is an aqueous electrolyte.

50. (withdrawn) The capacitor according to claim 47 wherein the carbon material is monolithic.

51. (withdrawn) A mesoporous carbon prepared according to claim 42 with at least one dimension greater than 2 mm, a surface area between 200 and 2000 m²/g, a density greater than 0.5 g/cc, and a pore size greater than 10 nm.

52. (withdrawn) The mesoporous carbon according to claim 51 having a conductivity of at least 10 Scm⁻¹.

53-69. (canceled)

70. (new) The method according to claim 40, further including the step of controlling the composition of the solution so as to produce a mesoporous polymer having a pore size between 2 and 50 nm.

71. (new) The method according to claim 40, further including the step of controlling the composition of the solution so as to produce a mesoporous polymer having a pore size between 10 and 28 nm.

72. (new) The method according to claim 40, wherein the pH of the solution is less than 6.5.

73. (new) The method according to claim 40 wherein said solution is essentially free of catalyst.

74. (new) The method according to claim 40 wherein said solution is essentially free of surfactant.

75. (new) The method according to claim 40 wherein the pH of the solution is less than 6.5 and the solution is essentially free of surfactant.

76. (new) The method according to claim 42, wherein the pH of the solution is less than 6.5.

77. (new) The method according to claim 42 wherein the solution is essentially free of catalyst.

78. (new) The method according to claim 42 wherein the solution is essentially free of surfactant.

79. (new) The method according to claim 42 wherein the pH of the solution is less than 6.5 and the solution is essentially free of surfactant.

80. (new) A method for preparing a mesoporous polymer, comprising the steps of:

a) providing an aqueous acidic solution containing one or more polymerizable organic compounds; and

b) polymerizing the polymerizable organic compounds;

wherein step b) includes controlling the average polymer particle size primarily by controlling the pH of the solution and controlling the pore size in the polymer primarily by adjusting the ratio of water to polymerizable organic compounds.

81. (new) The method according to claim 80 wherein one of the polymerizable organic compounds comprises a hydroxylated benzene.

82. (new) The method according to claim 80, further including the step of drying the porous polymer to produce a dried porous polymer.

83. (new) The method according to claim 80 wherein step b) is carried out so as to produce a mesoporous polymer having a pore size between 2 and 50 nm.

84. (new) The method according to claim 80 wherein step b) is carried out so as to produce a mesoporous polymer having a pore size between 10 and 28 nm.

85. (new) A method for preparing a mesoporous carbon, comprising the steps of:

a) providing an aqueous acidic solution containing one or more polymerizable organic compounds;

b) polymerizing the polymerizable organic compounds;

wherein step b) includes controlling the average polymer particle size primarily by controlling the pH of the solution and controlling the pore size in the polymer primarily by adjusting the ratio of water to polymerizable organic compounds; and

c) pyrolyzing the porous polymer to form a porous carbon.

86. (new) The method according to claim 85 wherein one of the polymerizable organic compounds comprises a hydroxylated benzene.

87. (new) The method according to claim 85, further including the step of activating the porous carbon so as to increase its capacitance when used with an electrolyte.

88. (new) The method according to claim 85, further including the step of activating the porous carbon, wherein the activation is carried out at between 500°C and 1200°C.

89. (new) The method according to claim 85, further including the step of controlling the composition of the solution so as to produce a mesoporous carbon having a pore size between 2 and 50 nm.

90. (new) The method according to claim 85, further including the step of controlling the composition of the solution so as to produce a mesoporous carbon having a pore size between 10 and 28 nm.